A B S T R A C T

The invention relates to a process for the preparation of ampicillin in which 6-aminopenicillanic acid (6-APA) is subjected to an enzymatic acylation reaction with the aid of a phenylglycine derivative, with the total concentration of the 6-APA present in the reaction mixture, plus ampicillin, being greater than 250 mM, the concentration of 6-APA in solution being kept lower than 300 mM and the molar ratio of acylation agent to 6-APA which is employed being less than 2.5.

The concentration of 6-APA present in the reaction mixture in dissolved form can be kept low in various ways. One possibility of keeping the concentration of dissolved 6-APA low is to initially charge only part of the total amount of 6-APA and to add the remainder during the reaction. The total amount of 6-APA is preferably initially charged at the start of the reaction. A suitable method of nevertheless achieving a low concentration of dissolved 6-APA is, for example, to keep the pH at a lower value than the pH at which maximum solubility of the reactants is achieved, by ensuring that the concentration of the phenylglycine derivative is kept low, for example by metering in the phenylglycine derivative partially in the course of the reaction, for example in the form of a salt thereof, preferably the salt of PGA and a mineral acid. In this way it is possible in a simple

way to achieve optimum metering of the PGA by keeping the pH constant. PGA.1/2H_2SO_4 is preferably used.